



Empowering Women Ex-Migrant Workers: Transforming Lives through Sustainable Ecoprint Training in Sidomulyo Village

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Abstract

Sidomulyo Village, located in Silo District, Jember Regency, is an area with significant tourism potential due to its proximity to the largest coffee plantation in Jember. The village offers various attractions, including Sendang Natural Tourism, wooden houses, a cycling track overlooking Mount Kunitir, and opportunities for milk and coffee farming, positioning it as a prospective tourist village. However, despite these natural advantages, the village faces economic challenges due to the high number of returning migrant workers with limited employment opportunities. This study aims to explore community empowerment through skill development, particularly in ecoprint craft production, as an alternative economic opportunity. The participatory approach involved training sessions on ecoprint techniques, utilizing abundant natural materials such as leaves, flowers, and tree bark. Additionally, business mentoring and assistance were provided to help participants develop small enterprises and increase their income. The results indicate a significant improvement in skills, with 85% of participants demonstrating proficiency in ecoprint techniques and a readiness to start entrepreneurial ventures. The initiative was further supported by local government efforts, including internet access for digital marketing and business mentoring programs. Despite these positive outcomes, the study faced challenges such as limited initial knowledge among participants, the need for continuous mentoring, and market access constraints for eco-friendly products. Addressing these challenges requires sustained support, including stronger partnerships with stakeholders and expanded marketing strategies. This study highlights the importance of skill-based empowerment as a strategy for economic resilience in rural communities.

Keywords: *Empowering women, migrant workers, ecoprint, the economic welfare*

|| Received: 10/12/2024

|| Accepted: 17/06/2025

|| Published: 18/06/2025



1. Introduction

Efforts to improve the community's economy can be implemented in various ways, including skill development that leverages local environmental conditions. In forest areas, community empowerment is often based on three key aspects: social capital, human capital, and physical capital. Practical strategies for empowerment include increasing agricultural productivity, enhancing plantation competitiveness, promoting livestock businesses, and encouraging community participation in sustainable forest management (Sugiarsono & Dhamayanthi, 2016).

Sidomulyo Village, located in Silo District, Jember Regency, is adjacent to the largest coffee plantation in Jember, making agriculture and tourism potential key economic drivers. The village boasts picturesque landscapes with attractions such as Sendang Natural Tourism, traditional wooden houses, cycling tracks with views of Mount Kunitir, and dairy and coffee farming. Given these natural resources, Sidomulyo Village has the potential to develop as a tourist village.

However, despite its rich natural potential, a significant challenge persists: a high number of villagers work as migrant laborers. Many residents, particularly women, leave the village in search of economic opportunities due to limited local employment prospects. This migration trend affects household stability, economic self-sufficiency, and local development, as returning migrant workers often lack the necessary skills to establish sustainable livelihoods. Women former migrant workers, in particular, face limited reintegration support and economic vulnerability upon returning home.

To address these challenges, this study explores a human capital-based empowerment strategy by equipping women former migrant workers with ecoprint skills, leveraging the village's abundant natural materials such as fresh leaves, flowers, and tree bark. The rationale for choosing ecoprint as an empowerment tool is based on the following considerations:

1. Abundant raw materials: The availability of natural dyes and printing materials reduces production costs, making the business more sustainable.
2. Market demand for eco-friendly products: Ecoprint aligns with global trends favoring sustainable, artisanal, and environmentally friendly crafts, providing a competitive advantage in niche markets.
3. Potential for economic independence: Compared to traditional agricultural work, ecoprinting requires minimal land and equipment, making it accessible for women with limited resources.
4. Skill scalability: Once trained, participants can expand their craft into diverse products, from fashion to home decor, allowing for business growth and market expansion.

This study aims to analyze the impact of skill development in ecoprinting on the entrepreneurial readiness of women former migrant workers. Additionally, it examines the



role of local government support in facilitating economic empowerment through training programs, digital marketing access, and business mentoring. By evaluating the effectiveness of this initiative, this research contributes to the broader discourse on community-based economic development and identifies sustainable models for skill-based entrepreneurship in rural settings.

2. Literature review

Women's economic empowerment is a crucial driver of gender equality and sustainable development. Access to entrepreneurship training enables women to increase their income, enhance decision-making capacities, and contribute meaningfully to their communities (Asadullah, 2021). Research suggests that economic empowerment frameworks, such as human capital theory and rural development strategies, emphasize the role of skills training in fostering self-reliance and long-term economic security (Becker, 1993; Sen, 1999). Despite significant progress, rural women often face structural barriers, including limited access to financial resources, training programs, and market opportunities, which hinder their economic participation (Kabeer, 2005).

One promising approach to women's economic empowerment is through ecoprint training. Ecoprint is a fabric-dyeing technique that utilizes natural color pigments from plant materials, such as leaves, flowers, and tree bark, to create unique and environmentally friendly designs. This method aligns with global sustainable fashion trends and offers a viable livelihood for women in rural areas, where access to raw materials is abundant (Khoirunnisa, Permadani, Syafira, Muniroh, & Rezky, 2024; Dyah, Indriani, & Safira, 2023).

Empirical studies have demonstrated that ecoprint training can serve as a catalyst for rural women's entrepreneurship by enhancing their business acumen, financial literacy, and resource management skills (Lestari, 2020). In Kaponan Village, Pakis Magelang District, an ecoprint training program was implemented to improve family welfare and create alternative income streams. Participants developed life skills that enabled them to maximize the economic potential of local resources, thereby reducing dependency on external employment opportunities. Similar initiatives have been conducted in Jurang Jero Hamlet, Ngawen, and Gunungkidul, where 20 women underwent training involving structured phases: planning, implementation, evaluation, and follow-up mentorship (Hiryanto, Santi, Trisanti, & Sujarwo, 2023; Jayati, Fitriyana, Lokaria, & Fitriani, 2022).

The integration of ecoprint training in coffee plantation areas presents a sustainable solution by utilizing organic waste, such as coffee leaves and tree bark, as natural dyes. This approach not only promotes environmental conservation but also enhances the creative capacities of rural women, enabling them to develop marketable, high-value fabric products. Studies indicate that such training programs significantly boost self-confidence, innovation, and financial independence among female participants, ultimately leading to the establishment of small-scale businesses centered around eco-friendly products (Lestari, 2020; Kabeer, 2012).



Government and institutional support play a pivotal role in scaling up these initiatives. Local governments, in collaboration with educational institutions and non-governmental organizations (NGOs), can facilitate skills development programs that align with the demands of Industry 4.0. Offering comprehensive training in sewing, handicrafts, food processing, and digital marketing can further enhance the economic resilience of rural women (A, 2019). Additionally, policies supporting women's entrepreneurship, access to microfinance, and market linkages are essential in ensuring the sustainability of ecoprint-based businesses (World Bank, 2020).

3. Method

This research employs a case study method to evaluate the impact of eco-print fabric production training on the economy of women on Sidomulyo Village, Silo District, Jember Regency. The case study approach is selected because it provides an in-depth understanding of participants' experiences, perceptions, and economic changes resulting from the training.

3.1. Research Design

This study adopts an exploratory case study approach, targeting a specific group of 15 ex-migrant women trained in eco-print fabric production. The case study methodology allows for a comprehensive analysis of the empowerment process and its impact on the participants' quality of life. The study population consists of 15 ex-migrant women from the Silo District currently residing in Sidomulyo Village, Jember Regency. They are in their productive age group, with an average age of 40 years, ranging between 35 and 45 years.

3.1.1 Research Participants

The participants are 15 ex-migrant women from Sidomulyo Village. They fall within the 35-45 age range and are in their productive years. However, the study does not include a control group (e.g., women who did not receive training), making it difficult to attribute economic changes solely to the training without considering external influences such as government aid or market demand.

3.2. Data Collection Procedure

Data is collected using three main techniques: face-to-face interviews, participant observation, and documentation.

3.2.1. In-depth Interviews

One-on-one interviews are conducted with each participant to gather insights into their experiences before, during, and after the training. These interviews explore participants' goals, aspirations, obstacles, and perceived changes in their daily lives. However, there is a potential recall bias, as the time elapsed between training completion and the interviews is not specified, which may affect the accuracy of participants' memories.



3.2.2. Participatory Observation

The researcher is actively involved in the training to observe participants' interactions, skill development, and engagement in the learning process. Additionally, observations include the eco-print fabric works produced by participants. However, researcher involvement may lead to observer bias, where participants modify their behavior due to being observed. The study does not discuss strategies to mitigate this potential bias.

3.2.3. Documentation

Documentation includes photographs, videos from training sessions, daily notes, and samples of eco-print fabric creations. This data is used to complement interview and observation findings.

3.3. Training Details

A few crucial elements are:

1. Training Duration: There mentorship or follow-up sessions over the two months of training, which was held at the conclusion of weeks two and four.
2. Training Content: The course addressed business skills, design principles, dyeing methods, and fabric choices.
3. Method of Training: The study notes that participants gained new abilities, indicating that the instruction was practical, theoretical, and group-based.

4. Findings and discussion

4.1 Finding

This study aims to understand the impact of empowering former female migrant workers through ecoprint training activities, particularly in terms of skill development, self-efficacy, and economic well-being. The findings are based on in-depth interviews, focus group discussions (FGD), participatory observations, and questionnaires.

a) Improving Skills in Ecoprint

Most participants reported a significant improvement in their ecoprinting skills after completing the training program. They developed proficiency in various techniques, including the selection of natural ingredients for dyeing, motif creation using steam techniques, and color preservation. Observations indicate that, after several attempts, participants were able to produce higher-quality ecoprint fabrics. Moreover, some participants exhibited creativity by experimenting with motif and color variations. A questionnaire revealed that 80% of participants felt confident enough to produce their own ecoprint fabric independently.

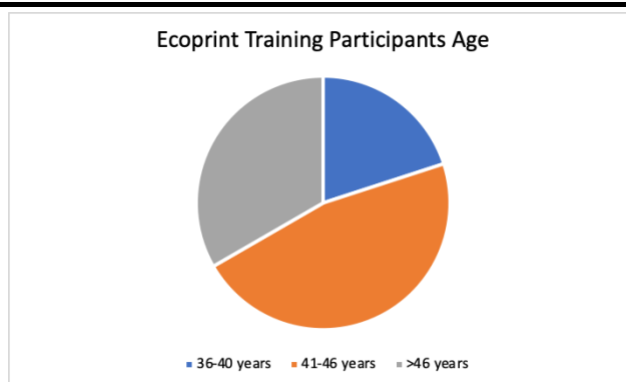


Figure 1. Training Participants Engaging in Ecoprint Techniques

a) Self-Confidence and Self-Directness

Interview results suggest a notable increase in participants' self-confidence. Many initially doubted their ability to engage in non-agricultural industries. However, post-training, 75% of participants expressed increased independence in creating economic opportunities through entrepreneurship. Participants not only gained the skills to produce ecoprint fabrics but also developed the confidence to market their work and manage small-scale businesses. Additionally, they observed a rise in community recognition and pride in their craftsmanship.

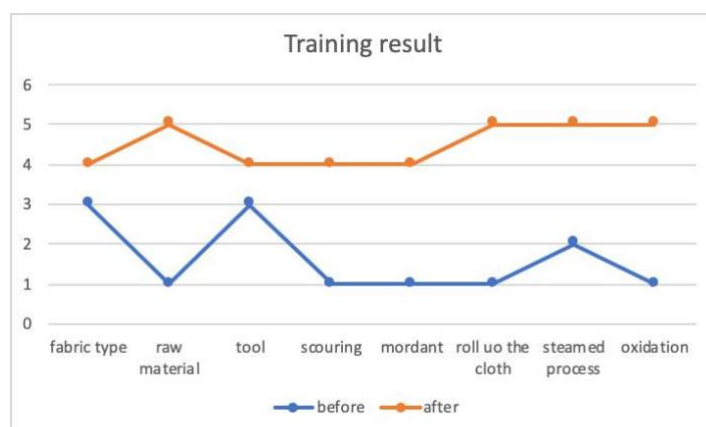


Figure 2. The results of knowledge and ecoprint training skills measurement



b) Economic Opportunities and Marketing Challenges

Despite mastering ecoprint techniques, participants faced challenges in product marketing. FGDs highlighted difficulties in accessing wider markets, both locally and online. In response, the Sidomulyo Village Government collaborated with the program to provide promotional support through online platforms and local exhibitions. The village also established a dedicated space for displaying and selling ecoprint products, enhancing visibility and market reach.

4.2 Discussion

4.2.1 Skill Development and Learning Autonomy

The results confirm that former female migrant workers experienced significant skill development through ecoprint training. The accessibility of raw materials and tools in the local environment facilitated continuous practice, contributing to the production of high-quality products. The motivation to learn was further supported by the participants' productive age group, allowing for effective communication and knowledge-sharing. Unlike structured training programs, skill improvement was primarily driven by independent practice, with participants using WhatsApp groups for peer discussions and feedback. This model of self-directed learning underscores the potential for sustainable skill acquisition beyond formal training settings.

4.2.2 Challenges in Business Sustainability and Market Expansion

While participants successfully developed ecoprint products, long-term business sustainability remains a concern. The major challenges include:

- a) Market Access: Limited reach beyond local customers hinders growth potential.
- b) Business Knowledge: Many participants require further guidance in financial management and marketing strategies.
- c) Cultural and Social Factors: Traditional gender roles and expectations may influence the extent to which women can engage in entrepreneurial activities.

To address these challenges, the village government provides continuous business assistance, promotional support, and networking opportunities through the "Transbumi Migran Mulia" community. This initiative strengthens social and economic ties among former migrant workers, encouraging collective progress.

4.2.3 Theoretical and Practical Implications

From a theoretical perspective, this study aligns with empowerment frameworks emphasizing skill-building, self-efficacy, and economic participation as key drivers of women's empowerment. Practically, the findings suggest that structured yet flexible training programs, combined with strong community and governmental support, can enhance economic independence among former migrant workers.

Future studies should explore the long-term impact of ecoprint training on financial stability and social mobility. Additionally, examining the role of digital platforms in



expanding market access could provide valuable insights for improving similar empowerment programs.

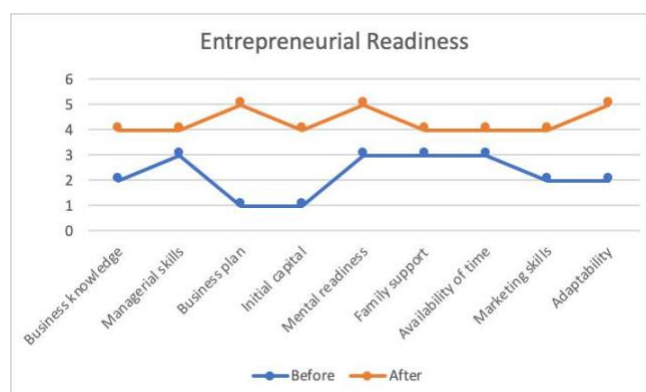


Figure 3. *Entrepreneurial Readiness and Government Support for Ecoprint Business*

5. Conclusion

This study demonstrates that ecoprint training effectively empowers former female migrant workers by enhancing their skills, self-confidence, and economic opportunities. Participants showed significant improvement in ecoprinting techniques, gained the ability to produce high-quality fabrics, and exhibited creativity in motif and color variations. Moreover, the training fostered self-efficacy, enabling participants to pursue entrepreneurial ventures and gain recognition in their communities.

However, challenges persist, particularly in market access, financial management, and overcoming cultural constraints. The village government and local community initiatives, such as "Transbumi Migran Mulia," have played a crucial role in supporting business sustainability through promotional efforts and networking opportunities.

From a theoretical perspective, this study aligns with empowerment models that emphasize skill development, self-efficacy, and economic participation as key factors in women's empowerment. In practice, the findings suggest that flexible training programs, combined with community and government support, can effectively promote long-term economic independence for former migrant workers. Future research should explore the lasting financial and social impacts of ecoprint training and the role of digital platforms in expanding market reach.

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